



Infectious Disease Epidemiology Section
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HEPATITIS D

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The Hepatitis D virus (HDV) is a defective single-stranded RNA virus that requires the helper function of Hepatitis B virus (HBV) to replicate. HDV requires HBV for synthesis of envelope protein composed of hepatitis B surface antigen (HbsAg) which is used to encapsulate the HDV genome.

Epidemiology

HDV can be acquired as either a coinfection with HBV or as a superinfection of persons with chronic HBV. The mode of transmission is similar to HBV, blood and body fluid transmission being the most important. In the United States, HDV infection is more common among parenteral drug abusers, persons with hemophilia, and persons immigrating from endemic areas.

The incubation period for HDV superinfection, estimated from inoculation of animals, ranges from 2 to 8 weeks. When HBV and HDV viruses infect simultaneously, the incubation period is similar to that of hepatitis B which is 45 to 160 days, with an average of 90 days.

Clinical Description

HDV is important because of its ability to convert an asymptomatic or mild chronic HBV infection into a fulminant or more severe or rapidly progressive disease. Onset is usually abrupt, with signs and symptoms resembling those of hepatitis B; delta hepatitis can be misdiagnosed as an exacerbation of chronic hepatitis B.

Laboratory Testing

Radioimmunoassay and enzyme immunoassay for anti-HDV antibody are available commercially, usually at referral laboratories.

Surveillance

Hepatitis D is not a reportable condition nationally or in Louisiana. However, since hepatitis D is always accompanied by hepatitis B which is reportable, a report of hepatitis D should be handled as hepatitis B report.

Report and Confirm Cases

Upon receipt of a report of Hepatitis D, contact the physician and/or hospital to confirm the underlying hepatitis B diagnosis. Be sure to obtain results of blood tests such as hepatitis B lab markers and the liver function profile to support the acute diagnosis.

Case Definition

A case of acute hepatitis D is defined as an illness characterized by the discrete onset of jaundice and/or elevated aminotransferase levels 2 1/2 times the normal levels and is laboratory confirmed by the presence of HbsAg or IgM anti-Hepatitis B core (anti-HBc) positive and antibody to hepatitis delta virus positive.

Prevention of transmission

- The prevention of HDV depends on HBV for replication, HBV-HDV coinfection can be prevented with either pre- or post-exposure prophylaxis for HBV. No products exists to prevent HDV superinfection of persons with chronic HBV infection. The focus of prevention rests primarily on education to reduce risk behavior.
- Isolation of the Hospitalized Patient: Standard precautions are recommended.